

Abstract

A video mixing apparatus carries out a chromakey process producing less degradation of picture quality by generating a key signal which separates a foreground object component from a screen component by using luminance information. In a three-dimensional color space, a smaller oval body surrounding a region where the foreground object is distributed and a larger oval body surrounding the smaller one are set. These two oval bodies and a distribution of a source video signal determine a key signal distribution. Key signal $K = 0$ (zero) when the source video signal is inside the smaller oval body, and $K = 1$ (one) when the signal is outside the larger oval body. $0 < K < 1$ when the signal is between the smaller and the larger oval bodies. Based on the key signal K generated, the source video signal is mixed with the background video signal.